



TEST REPORT OF CEMENT CONCRETE CUBES

Lab ID : CP-2023-08-29-19 Date: 27/06/2023

Project Name : Improvements to Roads and Drains at Mariyannapalya, Munikempanna Layout, Bhuvaneshwarinagara, Dasarahalli Balance Roads and Surrounding Area in Ward No. 06 Byatarayanapura Sub Division.

Agency : Sri. Gopi Reddy, No:03, 1st Cross, 1st Main, Ramachandrapappa Layout, Vecranapalya, Arabic College Post, Bangalore-560045

Customer's Reference : BBMP/EE/BTP/WO/02/2021-22

Date of Receipt : 22-06-23

Customer ID : Cement Concrete Pavement - Sri Laxmi Narayana opp Road

Sample Type /Size : 150X150X150 mm

Sample grade/Age : M30 / 7 Days Compressive Strength

Reference to BIS codes : IS: 516 - 1959 (RA 2018) Methods of Tests for Strength of Concrete Cl.5

Date of test : 27/06/2023

Date of test											
SL No.	Identification Mark	Grade of concrete	Date of Casting	Date of Testing	Dimension of the Specimen		Cross sectional area	Weight of the sample	Failure Load	Compressive strength	Average Compressive Strength
					(mm)		(Sq.mm)	(kg)	(KN)	(N/mm ²)	(N/mm ²)
1	Cement Concrete Pavement - Sri Laxmi Narayana opp Road	M30	20/06/2023	27/06/2023	150.35	X	22673	8.251	491.2	21.7	21.3
					150.80	X					
					150.07						
2	Cement Concrete Pavement - Sri Laxmi Narayana opp Road	M30	20/06/2023	27/06/2023	150.68	X	22605	8.611	476.9	21.1	
					150.02	X					
					150.02						
3	Cement Concrete Pavement - Sri Laxmi Narayana opp Road	M30	20/06/2023	27/06/2023	150.43	X	22604	8.850	480.1	21.2	
					150.26	X					
					150.75						

* The results obtained are satisfactory as per standard requirements.

ಸಹಾಯಕ ಅಧೀಕ್ಷಕರು
ಬಿ.ಬಿ.ಎಂ.ಪಿ. ಪಾಪನಾಥಪುರ ಉಪ ವಿಭಾಗ

ಸಹಾಯಕ ಕಾರ್ಯಪಾಲಕ ಅಧೀಕ್ಷಕರು
ಪಾಪನಾಥಪುರ ಉಪ ವಿಭಾಗ
ಬಿ.ಬಿ.ಎಂ.ಪಿ. ಬೆಂಗಳೂರು-24



FOR CIVIL Pro.

R KARTHIK RECHAN
Authorized Signatory
Quality Manager

TEST REPORT OF CEMENT CONCRETE CUBES

CP-2023-08-29-19

Date: 18/07/2023

Improvements to Roads and Drains at Mariyannapalya, Munikempanna Layout, Bhuvaneshwarinagara, Dasarahalli Balance Roads and Surrounding Area in Ward No. 06 Byatarayanapura Sub Division.

Sri. Gopi Reddy, No:03, 1st Cross, 1st Main, Ramachandrapappa Layout, Veeranapalya, Arabic College Post, Bangalore-560045

BBMP/EE/BTP/WO/02/2021-22

22-06-23

Cement Concrete Pavement - Sri Laxmi Narayana opp Road

150X150X150 mm

M30 / 28 Days Compressive Strength

IS: 516 - 1959 (RA 2018) Methods of Tests for Strength of Concrete Cl.5

18/07/2023

Identification Mark	Grade of concrete	Date of Casting	Date of Testing	Dimension of the Specimen		Cross sectional area	Weight of the sample	Failure Load	Compressive strength	Average Compressive Strength		
				(mm)							(Sq.mm)	(kg)
Cement Concrete Pavement - Sri axmi Narayana opp Road	M30	20/06/2023	18/07/2023	150.79	X	22764	8.565	746.5	32.8	32.9		
				150.96	X							
				150.29								
Cement Concrete Pavement - Sri axmi Narayana opp Road	M30	20/06/2023	18/07/2023	150.87	X	22721	8.746	745.1	32.8		32.9	
				150.60	X							
				150.81								
Cement Concrete Pavement - Sri axmi Narayana opp Road	M30	20/06/2023	18/07/2023	150.33	X	22695	8.297	752.8	33.2			32.9
				150.96	X							
				150.28								

Results obtained are satisfactory as per standard requirements.

ಸಹಾಯಕ ಅಭಿಯಂತರರು
ದಿ.ಬಿ.ಎಂ.ಪಿ. ಪ್ರಾಜೆಕ್ಟರೇಷನರು ಉಪ ನಿರ್ದೇಶಕರು

ಸಹಾಯಕ ಕಾರ್ಯದರ್ಶಿ ಅಭಿಯಂತರರು
ಪ್ರಾಜೆಕ್ಟರೇಷನರು ಉಪ ನಿರ್ದೇಶಕರು
ದಿ.ಬಿ.ಎಂ.ಪಿ. ಭಂಗುರವಾಡ-24



FOR CIVIL PRO
R KARTHIK RECHAN
Authorized Signatory
Quality Manager

TEST REPORT OF CEMENT CONCRETE CUBES

Lab ID	CP-2023-08-29-19	Date: 28/06/2023
Project Name	Improvements to Roads and Drains at Mariyannapalya, Munikempanna Layout, Bhuvaneshwarinagara, Dasarahalli Balance Roads and Surrounding Area in Ward No. 06 Byatarayanapura Sub Division.	
Agency	Sri. Gopi Reddy, No:03, 1st Cross, 1st Main, Ramachandrapappa Layout, Veeranapalya, Arabic College Post, Bangalore-560045	
Customer's Reference	BBMP/EE/BTP/WO/02/2021-22	
Date of Receipt	23-06-23	
Customer ID	Cement Concrete Pavement - 7 star Multi Cusine Beside Road	
Sample Type /Size	150X150X150 mm	
Sample grade/Age	M30 / 7 Days Compressive Strength	
Reference to BIS codes	IS: 516 - 1959 (RA 2018) Methods of Tests for Strength of Concrete C1.5	
Date of test	28/06/2023	

Sl. No.	Identification Mark	Grade of concrete	Date of Casting	Date of Testing	Dimension of the Specimen		Cross sectional area	Weight of the sample	Failure Load	Compressive strength	Average Compressive Strength
					(mm)						
1	Cement Concrete Pavement - 7 star Multi Cusine Beside Road	M30	21/06/2023	28/06/2023	150.70	X	22730	8.113	498.2	21.9	21.6
					150.83	X					
					150.80						
2	Cement Concrete Pavement - 7 star Multi Cusine Beside Road	M30	21/06/2023	28/06/2023	150.72	X	22661	8.299	477.7	21.1	
					150.35	X					
					150.46						
3	Cement Concrete Pavement - 7 star Multi Cusine Beside Road	M30	21/06/2023	28/06/2023	150.01	X	22537	8.729	494.2	21.9	
					150.23	X					
					150.31						

* The results obtained are satisfactory as per standard requirements.

ಸಹಾಯಕ ಅಧೀನಾಂತರರು
ಬಿ.ಬಿ.ಎಂ.ಪಿ. ಪ್ರಾಚಾರ್ಯರವರು ಬಂದ ವಿಷಯ

ಜನಾರ್ಥಕ ಕಾರ್ಯಪಾಲಕ ಅಭಿಮಾನಿಗಳು
ಪ್ರಾಚಾರ್ಯನವರು ಉಪ ವಿಭಾಗ
ಇ.ದಿ.ಸಂ.೬ ಬಂಗಲಾ-24



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R KARTHIK RECHAN
 Authorized Signatory
 Quality Manager

Page 1/1

****End of Report****

TEST REPORT OF CEMENT CONCRETE CUBES

: CP-2023-08-29-19

Date: 19/07/2023

: Improvements to Roads and Drains at Mariyannapalya, Munikempanna Layout, Bhuvaneshwarinagara, Dasarahalli Balance Roads and Surrounding Area in Ward No. 06 Byatarayanapura Sub Division.

: Sri. Gopi Reddy, No:03, 1st Cross, 1st Main, Ramachandrapappa Layout, Veeranapalya, Arabic College Post, Bangalore-560045

: BBMP/EE/BTP/WO/02/2021-22

: 23-06-23

: Cement Concrete Pavement - 7 star Multi Cuisine Beside Road

: 150X150X150 mm

: M30 / 28 Days Compressive Strength

: IS: 516 - 1959 (RA 2018) Methods of Tests for Strength of Concrete CL5

: 19/07/2023

Identification Mark	Grade of concrete	Date of Casting	Date of Testing	Dimension of the Specimen	Cross sectional area	Weight of the sample	Failure Load	Compressive strength	Average Compressive Strength
				(mm)	(Sq.mm)	(kg)	(KN)	(N/mm ²)	(N/mm ²)
Cement Concrete Pavement - 7 star Multi Cuisine Beside Road	M30	21/06/2023	19/07/2023	150.54	X	22650	8.916	753.6	33.3
				150.46	X				
				150.70					
Cement Concrete Pavement - 7 star Multi Cuisine Beside Road	M30	21/06/2023	19/07/2023	150.60	X	22605	8.725	749.0	33.1
				150.10	X				
				150.17					
Cement Concrete Pavement - 7 star Multi Cuisine Beside Road	M30	21/06/2023	19/07/2023	150.87	X	22711	8.221	751.1	33.1
				150.54	X				
				150.42					

The results obtained are satisfactory as per standard requirements.

ಸಹಾಯಕ ಅಭಿಯಂತರರು

ದಿ.ದಿ.ಎಂ.ಎ. ಪ್ರಾಜೆಕ್ಟ್‌ನಲ್ಲಿ ಉಪ ನಿರ್ದೇಶಕರು



ಸಹಾಯಕ ಕಾರ್ಯನಿರ್ವಾಹಕ ಅಭಿಯಂತರರು
ಪ್ರಾಜೆಕ್ಟ್‌ನಲ್ಲಿ ಉಪ ನಿರ್ದೇಶಕರು
ದಿ.ದಿ.ಎಂ.ಎ. ದಿ.ದಿ.ಎಂ.ಎ.-24



FOR CIVIL PRO.
R KARTHIK RECHAN
Authorized Signatory
Quality Manager

TEST REPORT OF CEMENT CONCRETE CUBES

CP-2023-08-29-19

Date: 28/06/2023

Name

Improvements to Roads and Drains at Mariyannapalya, Munikempanna Layout, Bhuvaneshwarinagara, Dasarahalli Balance Roads and Surrounding Area in Ward No. 06 Byatarayanapura Sub Division.

Y

Sri. Gopi Reddy, No:03, 1st Cross, 1st Main, Ramachandrapappa Layout, Veeranapalya, Arabic College Post, Bangalore-560045

Owner's Reference

BBMP/EE/BTP/WO/02/2021-22

of Receipt

23-06-23

Owner ID

Cement Concrete Pavement - 7 star Multi Cusine Beside Road

Sample Type /Size

150X150X150 mm

Sample grade/Age

M30 / 7 Days Compressive Strength

Reference to BIS codes

IS: 516 - 1959 (RA 2018) Methods of Tests for Strength of Concrete C1.5

Time of test

28/06/2023

Identification Mark	Grade of concrete	Date of Casting	Date of Testing	Dimension of the Specimen		Cross sectional area	Weight of the sample	Failure Load	Compressive strength	Average Compressive Strength
				(mm)						
Cement Concrete Pavement - 7 star Multi Cusine Beside Road	M30	21/06/2023	28/06/2023	150.15	X	22534	8.532	478.8	21.2	21.2
				150.07	X					
				150.66						
Cement Concrete Pavement - 7 star Multi Cusine Beside Road	M30	21/06/2023	28/06/2023	150.95	X	22648	8.950	485.5	21.4	
				150.04	X					
				150.88						
Cement Concrete Pavement - 7 star Multi Cusine Beside Road	M30	21/06/2023	28/06/2023	150.18	X	22665	8.926	476.7	21.0	
				150.92	X					
				150.66						

The results obtained are satisfactory as per standard requirements.

(Signature)
ಸಹಾಯಕ ಅಭಿಯಂತರರು
ಬಿ.ಬಿ.ಎಂ.ಪಿ. ಪ್ರಾಜೆಕ್ಟ್‌ನಲ್ಲಿ ಇವರ ನಿರ್ವಹಣೆ
(Signature)
ಸಹಾಯಕ ಕಾರ್ಯದರ್ಶಿ ಅಭಿಯಂತರರು
ಪ್ರಾಜೆಕ್ಟ್‌ನಲ್ಲಿ ಇವರ ನಿರ್ವಹಣೆ
ಬಿ.ಬಿ.ಎಂ.ಪಿ. ಮಂಗಳೂರು-24



FOR CIVIL PRO
(Signature)
R KARTHIK RECHAN
Authorized Signatory
Quality Manager



TEST REPORT OF CEMENT CONCRETE CUBES

Lab ID

: CP-2023-08-29-19

Date: 19/07/2023

Project Name

: Improvements to Roads and Drains at Mariyannapalya, Munikempanna Layout, Bhuvaneshwarinagara, Dasarahalli Balance Roads and Surrounding Area in Ward No. 06 Byatarayanapura Sub Division.

Agency

: Sri. Gopi Reddy, No:03, 1st Cross, 1st Main, Ramachandrapappa Layout, Veeranapalya, Arabic College Post, Bangalore-560045

Customer's Reference

: BBMP/EE/BTP/WO/02/2021-22

Date of Receipt

: 23-06-23

Customer ID

: Cement Concrete Pavement - 7 star Multi Cuisine Beside Road

Sample Type /Size

: 150X150X150 mm

Sample grade/Age

: M30 / 28 Days Compressive Strength

Reference to BIS codes

: IS: 516 - 1959 (RA 2018) Methods of Tests for Strength of Concrete Cl.5

Date of test

: 19/07/2023

Sl. No.	Identification Mark	Grade of concrete	Date of Casting	Date of Testing	Dimension of the Specimen		Cross sectional area	Weight of the sample	Failure Load	Compressive strength	Average Compressive Strength
					(mm)						
1	Cement Concrete Pavement - 7 star Multi Cuisine Beside Road	M30	21/06/2023	19/07/2023	150.09	X	22513	8.257	721.1	32.0	32.4
					150.00	X					
					150.51						
2	Cement Concrete Pavement - 7 star Multi Cuisine Beside Road	M30	21/06/2023	19/07/2023	150.24	X	22637	8.690	745.3	32.9	
					150.68	X					
					150.72						
3	Cement Concrete Pavement - 7 star Multi Cuisine Beside Road	M30	21/06/2023	19/07/2023	150.35	X	22674	8.407	729.6	32.2	
					150.81	X					
					150.52						

* The results obtained are satisfactory as per standard requirements.

ಸಹಾಯಕ ಅಭಿಯಂತರರು
ಬಿ.ಬಿ.ಎಂ.ಸಿ. ಪ್ಲಾಟಿಂಗ್‌ನಡುವರ ಉಪ ವಿಭಾಗ
ಬಿ.ಬಿ.ಎಂ.ಸಿ. ಮಂಗಳೂರು-24

ಸಹಾಯಕ ಕಾರ್ಯಪಾಲಕ ಅಭಿಯಂತರರು
ಪ್ಲಾಟಿಂಗ್‌ನಡುವರ ಉಪ ವಿಭಾಗ
ಬಿ.ಬಿ.ಎಂ.ಸಿ. ಮಂಗಳೂರು-24



FOR CIVIL Pro
R. KARTHIK RECHAN
Authorized Signatory
Quality Manager

TEST REPORT OF CEMENT CONCRETE CUBES

Lab ID : CP-2023-08-29-19 Date: 29/06/2023

Project Name : Improvements to Roads and Drains at Mariyannapalya, Munikempanna Layout, Bhuvaneshwarinagara, Dasarahalli Balance Roads and Surrounding Area in Ward No. 06 Byatarayanapura Sub Division.

Agency : Sri. Gopi Reddy, No.03, 1st Cross, 1st Main, Ramachandrapappa Layout, Veeranapalya, Arabic College Post, Bangalore-560045

Customer's Reference : BHMP/EE/BTP/WO/02/2021-22

Date of Receipt : 24-06-23

Customer ID : Cement Concrete Pavement - Kuvempu Layout- 2nd main Road

Sample Type/Size : 150X150X150 mm

Sample grade/Age : M30 / 7 Days Compressive Strength

Reference to BIS codes : IS: 516 - 1959 (RA 2018) Methods of Tests for Strength of Concrete Cl.5

Date of test : 29/06/2023

Date of Test											
Sl. No.	Identification Mark	Grade of concrete	Date of Casting	Date of Testing	Dimension of the Specimen		Cross sectional area	Weight of the sample	Failure Load	Compressive strength	Average Compressive Strength
					(mm)		(Sq.mm)	(kg)	(KN)	(N/mm ²)	(N/mm ²)
1	Cement Concrete Pavement - Kuvempu Layout- 2nd main Road	M30	22/06/2023	29/06/2023	150.52	X	22635	8.721	476.6	21.1	21.1
					150.38	X					
					150.26						
2	Cement Concrete Pavement - Kuvempu Layout- 2nd main Road	M30	22/06/2023	29/06/2023	150.28	X	22688	8.348	477.3	21.0	
					150.97	X					
					150.26						
3	Cement Concrete Pavement - Kuvempu Layout- 2nd main Road	M30	22/06/2023	29/06/2023	150.85	X	22701	8.902	478.4	21.1	
					150.48	X					
					150.14						

*The results obtained are satisfactory as per standard requirements.


 ಸಹಾಯಕ ಕಾರ್ಯನಿರ್ವಾಹಕ ಅಧೀಕ್ಷಕರು
 ಪ್ರಾಚಾರ್ಯನವರು ಉಪ ನಿರ್ದೇಶಕರು
 ಮ.ಪ.ಸ.ಪ. ಮಂಗಳೂರು-24



FOR CIVIL Pro.

R KARTHIK RECHAN
 Authorized Signatory
 Quality Manager

TEST REPORT OF CEMENT CONCRETE CUBES

CP-2023-08-29-19

Date: 20/07/2023

Name

Improvements to Roads and Drains at Mariyannapalya, Munikempanna Layout, Bhuvaneshwarinagara, Dasarahalli Balance Roads and Surrounding Area in Ward No. 06 Byatarayanapura Sub Division.

er's Reference

Sri. Gopi Reddy, No:03, 1st Cross, 1st Main, Ramachandrapappa Layout, Veeranapalya, Arabic College Post, Bangalore-560045

Receipt

BBMP/EE/BTP/WO/02/2021-22

er ID

24-06-23

Type /Size

Cement Concrete Pavement - Kuvempu Layout- 2nd main Road

grade/Age

150X150X150 mm

ce to BIS codes

M30 / 28 Days Compressive Strength

IS: 516 - 1959 (RA 2018) Methods of Tests for Strength of Concrete Cl.5

test

20/07/2023

Identification Mark	Grade of concrete	Date of Casting	Date of Testing	Dimension of the Specimen		Cross sectional area	Weight of the sample	Failure Load	Compressive strength	Average Compressive Strength
				(mm)						
Cement Concrete Pavement - Kuvempu Layout- 2nd main Road	M30	22/06/2023	20/07/2023	150.79	X	22638	8.461	756.9	33.4	33.3
				150.13	X					
				150.08						
Cement Concrete Pavement - Kuvempu Layout- 2nd main Road	M30	22/06/2023	20/07/2023	150.16	X	22586	8.202	748.3	33.1	
				150.42	X					
				150.18						
Cement Concrete Pavement - Kuvempu Layout- 2nd main Road	M30	22/06/2023	20/07/2023	150.16	X	22643	8.459	756.5	33.4	
				150.80	X					
				150.16						

results obtained are satisfactory as per standard requirements.

(Handwritten signature and stamp)
ಕರ್ನಾಟಕ ರಾಜ್ಯ ಸರ್ಕಾರದ ಅಧೀನದಲ್ಲಿ
ಬೃಹದ್ವಿನ್ಯಾಸನಾಥರ ಉಪ ನಿರ್ದೇಶಕರು
ಬಿ.ಬಿ.ಎ. ಮಂಗಳೂರು-24



FOR CIVIL Pro.
(Signature)
R KARTHIK RECHAN
Authorized Signatory
Quality Manager



TEST REPORT OF CEMENT CONCRETE CUBES

Lab ID : CP-2023-08-29-19 Date: 29/06/2023
Project Name : Improvements to Roads and Drains at Mariyannapalya, Munikempanna Layout, Bhuvaneshwarinagara, Dasarahalli Balance Roads and Surrounding Area in Ward No. 06 Byatarayanapura Sub Division.
Agency : Sri. Gopi Reddy, No:03, 1st Cross, 1st Main, Ramachandrapappa Layout, Veeranapalya, Arabic College Post, Bangalore-560045
Customer's Reference : BBMP/EE/BTP/WO/02/2021-22
Date of Receipt : 24-06-23
Customer ID : Cement Concrete Pavement - Kuvempu Layout- 2nd main Road
Sample Type /Size : 150X150X150 mm
Sample grade/Age : M30 / 7 Days Compressive Strength
Reference to BIS codes : IS: 516 - 1959 (RA 2018) Methods of Tests for Strength of Concrete Cl.5
Date of test : 29/06/2023

Date of test											
Sl. No.	Identification Mark	Grade of concrete	Date of Casting	Date of Testing	Dimension of the Specimen		Cross sectional area	Weight of the sample	Failure Load	Compressive strength	Average Compressive Strength
					(mm)						
1	Cement Concrete Pavement - Kuvempu Layout- 2nd main Road	M30	22/06/2023	29/06/2023	150.96	X	22692	8.723	486.0	21.4	21.3
					150.32	X					
					150.05						
2	Cement Concrete Pavement - Kuvempu Layout- 2nd main Road	M30	22/06/2023	29/06/2023	150.20	X	22607	8.740	478.1	21.1	
					150.52	X					
					150.68						
3	Cement Concrete Pavement - Kuvempu Layout- 2nd main Road	M30	22/06/2023	29/06/2023	150.65	X	22666	8.331	486.8	21.5	
					150.46	X					
					150.28						

*The results obtained are satisfactory as per standard requirements.

ಸಹಾಯಕ ಅಭಿಯಂತರರು
ಬಿ.ಬಿ.ಎಂ.ಪಿ. ಪ್ರಾ.ಪ್ರ.ರಾಯನಪುರ ಉಪ ವಿಭಾಗ

ಸಹಾಯಕ ಕಾರ್ಯನಿರ್ವಾಹಕ ಅಭಿಯಂತರರು
ಪ್ರಾ.ಪ್ರ.ರಾಯನಪುರ ಉಪ ವಿಭಾಗ
ಬಿ.ಬಿ.ಎಂ.ಪಿ. ಬೆಂಗಳೂರು-24



FOR CIVIL Pro.
R. KARTHIK RECHAN
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Quality Manager



TEST REPORT OF CEMENT CONCRETE CUBES

Lab ID : CP-2023-08-29-19 Date: 20/07/2023

Project Name : Improvements to Roads and Drains at Mariyannapalya, Munikempanna Layout, Bhuvaneshwarinagara, Dasarahalli Balance Roads and Surrounding Area in Ward No. 06 Byatarayanapura Sub Division.

Agency : Sri. Gopi Reddy, No:03, 1st Cross, 1st Main, Ramachandrapappa Layout, Veeranapalya, Arabic College Post, Bangalore-560045

Customer's Reference : BBMP/EE/BTP/WO/02/2021-22

Date of Receipt : 24-06-23

Customer ID : Cement Concrete Pavement - Kuvempu Layout- 2nd main Road

Sample Type /Size : 150X150X150 mm

Sample grade/Age : M30 / 28 Days Compressive Strength

Reference to BIS codes : IS: 516 - 1959 (RA 2018) Methods of Tests for Strength of Concrete Cl.5

Date of test : 20/07/2023

Sl. No.	Identification Mark	Grade of concrete	Date of Casting	Date of Testing	Dimension of the Specimen	Cross sectional area	Weight of the sample	Failure Load	Compressive strength	Average Compressive Strength
					(mm)	(Sq.mm)	(kg)	(KN)	(N/mm ²)	(N/mm ²)
1	Cement Concrete Pavement - Kuvempu Layout- 2nd main Road	M30	22/06/2023	20/07/2023	150.91 X 150.17 X 150.33	22662	8.829	770.4	34.0	34.0
2	Cement Concrete Pavement - Kuvempu Layout- 2nd main Road	M30	22/06/2023	20/07/2023	150.40 X 150.92 X 150.56	22698	8.890	768.4	33.9	
3	Cement Concrete Pavement - Kuvempu Layout- 2nd main Road	M30	22/06/2023	20/07/2023	151.00 X 150.12 X 150.81	22668	8.456	775.0	34.2	

* The results obtained are satisfactory as per standard requirements.

[Signature]
ಸಹಾಯಕ ಅಧೀಕ್ಷಕರು



ಸಹಾಯಕ ಕಾರ್ಯಪಾಲಕ ಅಧೀಕ್ಷಕರು
ಬ್ಯಾಟರಾಯನಪುರ ಉಪ ವಿಭಾಗ
ಬಿ ಬಿ ಎಂ.ಎ. ಬಂಗಲಾ-24



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[Signature]
R KARTHIK RECHAN
Authorized Signatory
Quality Manager

TEST RESULTS OF GRADATION FOR GSB (IS 2386:(Part 1) 1963 (RA2011))

Lab ID : CP-RW-2019-02-15-31 Date: 03-08-22
Project Name : Improvements to Roads and Drains at Mariyannapalya,
Munikempanna Layout, Bhuvaneshwarinagara, Dasarahalli
Balance Roads and Surrounding Area in Ward No. 06
Byatarayanapura Sub Division.
Agency : Sri. Gopi Reddy, No:03, 1st Cross, 1st Main, Ramachandrapappa
Layout, Veeranapalya, Arabic College Post, Bangalore-560045
Customer Reference : BBMP/EE/BTP/WO/02/2021-22
Date of Receipt : 01-08-22
Type of Mix : GSB (Granular Sub Base) Grade-V
Date of Test : 01-08-22
Oven Dry Weight : 10000 Grams

IS Sieve Size(mm)	Weight Retained (gm)	Cumulative Weight Retained (gm)	% Cumulative Weight Retained	% Passing	Spec. Limit Vide Table 400.1 MORTH Specification
75	0	0	0	100	100
53	997	997	9.97	90.03	80-100
26.5	2179	3176	31.76	68.24	55-90
9.5	1292	4468	44.68	55.32	35-65
4.75	1490	5958	59.58	40.42	25-50
2.36	2200	8158	81.58	18.42	10-20
0.85	1230	9388	93.88	6.12	2-10
0.425	250	9638	96.38	3.62	0-5

TESTS ON FILLER SCREEN MATERIALS

Sl no	Particulars	Test results	Spec.Limit Vide Table
1	Liquid Limit, %	21.33%	Maximum 25
2	Plasticity index, %	Non plastic	Maximum 6

* The results obtained are satisfactory as per standard requirements.

ಇದರಲ್ಲಿ ಉಪಯುಕ್ತ ಫಲಿತಾಂಶಗಳು
ವಿವರಿಸಲ್ಪಟ್ಟಿವೆ ಮತ್ತು ಅವು
ಸಾಕಷ್ಟು ಸಮರ್ಪಕವಾಗಿವೆ.
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ಸಾಕಷ್ಟು ಸಮರ್ಪಕವಾಗಿವೆ.
ಇದರಲ್ಲಿ ಉಪಯುಕ್ತ ಫಲಿತಾಂಶಗಳು
ವಿವರಿಸಲ್ಪಟ್ಟಿವೆ ಮತ್ತು ಅವು
ಸಾಕಷ್ಟು ಸಮರ್ಪಕವಾಗಿವೆ.



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R KARTHIK RECHAN
Authorized Signatory
Quality Manager

Page 1/1
End of Report

TEST REPORT OF AGGREGATE IMPACT VALUE IS: 2386 Part IV

Lab ID : CP-RW-2023-08-29-19 Date: 08-08-22
Project Name : Improvements to Roads and Drains at Mariyannapalya, Munikempanna Layout, Bhuvaneshwarinagara, Dasarahalli Balance Roads and Surrounding Area in Ward No. 06 Byatarayanapura Sub Division.
Agency : Sri. Gopi Reddy, No:03, 1st Cross, 1st Main, Ramachandrapappa Layout, Veeranapalya, Arabic College Post, Bangalore-560045
Customer Reference : BBMP/EE/BTP/WO/02/2021-22
Date of Receipt : 06-08-22
Type of Mix : Coarse Aggregate for WMM (Wet Mix Macadam)
Date of test : 06-08-22

Sl.No	Particulars of observations	Index	TEST 1	TEST 2
1	Total weight of the surface dry sample sample (passing 12.5 mm and retained on 10mm sieve)	A	300.2	300.2
2	Weight of fraction passing 2.36mm sieve After giving 15 blows	B	73.9	74.0
3	weight of fraction retained 2.36mm sieve After giving 15 blows	C	225.9	225.8
4	Total weight of (B+C) is less than the initial weight (Weight A) by more than one gram the result shall be discarded and a fresh test made.	A-(B+C)	0.4	0.4
5	Aggregate impact value	(B/A)*100	24.6	24.7
6	Aggregate impact value (Mean of two tests)	Percentage	24.6	

*The results obtained are satisfactory as per standard requirements.

(Signature)
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ಪ್ರತಿಪಾಲಕರು

(Signature)

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ಪ್ರತಿಪಾಲಕರು
ಪ್ರತಿಪಾಲಕರು



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(Signature)
R KARTHIK RECHAN
Authorized Signatory
Quality Manager

DETERMINATION OF FLAKINESS INDEX AND ELONGATION INDEX OF COARSE AGGREGATE (IS 2386 (Part 1) 1963 (RA 2007))

Lab ID : CP-RW-2023-08-29-19 Date: 08-08-22
Project Name : Improvements to Roads and Drains at Mariyannapalya,
Munikempanna Layout, Bhuvaneshwarinagara, Dasarahalli Balance
Roads and Surrounding Area in Ward No. 06 Byatarayanapura Sub
Division.
Agency : Sri. Gopi Reddy, No:03, 1st Cross, 1st Main, Ramachandrapappa
Layout, Veeranapalya, Arabic College Post, Bangalore-560045
Customer Reference : BBMP/EE/BTP/WO/02/2021-22
Date of Receipt : 06-08-22
Type of Mix : Coarse Aggregate for WMM (Wet Mix Macadam)
Date of test : 06-08-22
Result:

Index	Percentage of Flakiness and Elongation Index	Secified limits as per MORTH specification table 400-12
Flakiness Index	12.8%	Combined Flakiness & Elongation Index for WMM is Maximum 35%
Elongation Index	12.5%	
Combined Flakiness and Elongation Index for WMM	25.3%	

*The results obtained are satisfactory as per standard requirements.

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ಸಹಾಯಕ ಕಾರ್ಯಪಾಲಕ ಅಧೀಕ್ಷಕರು
ಬೃಹದ್ವಿಭಾಗದ ಉಪ ನಿರ್ದೇಶಕರು
ಬೆಂಗಳೂರು - 560045

ಸಹಾಯಕ ಕಾರ್ಯಪಾಲಕ ಅಧೀಕ್ಷಕರು
ಬೃಹದ್ವಿಭಾಗದ ಉಪ ನಿರ್ದೇಶಕರು
ಬೆಂಗಳೂರು - 560045



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R KARTHIK RECHAN
Authorized Signatory
Quality Manager

TEST REPORT ON BITUMEN

- : CP-RW-2023-08-29-19
Date: 16-08-22
Improvements to Roads and Drains at Mariyannapalya, Munikempanna Layout, Bhuvaneshwarinagara, Dasarahalli Balance Roads and Surrounding Area in Ward No. 06 Byatarayanapura Sub Division.
Sri. Gopi Reddy, No:03, 1st Cross, 1st Main, Ramachandrapappa Layout, Veeranapalya, Arabic College Post, Bangalore-560045
BBMP/EE/BTP/WO/02/2021-22
13-08-22
Bitumen
IS: 1201-2021, IS: 1202-1220(1978) (Reaffirmed-2019)
13-08-22

S.No	Name of Test	Result	Requirements as per IS:73-2013
1	Penetration at 25°C, in 1/10th mm	64	45 mm
2	Softening Point, °C	51.2	Min. 47°C
3	Ductility, cm	98	Min. 40cm
4	Flash point, °C	280	Min. 220°C
	Fire point, °C	292	

*The results obtained are satisfactory as per standard requirements.

ಸಹಾಯಕ ಅಭಿಯಂತರರು
ಬಿ.ಬಿ.ಎಂ.ಪಿ. ಪ್ರಾಜೆಕ್ಟ್‌ನಲ್ಲಿ ಉಪ ನಿರ್ದೇಶಕರು

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ಪ್ರಾಜೆಕ್ಟ್‌ನಲ್ಲಿ ಉಪ ನಿರ್ದೇಶಕರು
ಬಿ.ಬಿ.ಎಂ.ಪಿ. ಬೆಂಗಳೂರು-24



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R. KARTHIK RECHAN
Authorized Signatory
Quality Manager

TEST RESULTS OF GRADATION FOR BM (IS 2386:(Part 1) 1963 (RA2011))

: CP-RW-2023-08-29-19

Date: 19-08-22

: Improvements to Roads and Drains at Mariyannapalya, Munikempanna Layout, Bhuvaneshwarinagara, Dasarahalli Balance Roads and Surrounding Area in Ward No. 06 Byatarayanapura Sub Division.

: Sri. Gopi Reddy, No:03, 1st Cross, 1st Main, Ramachandrapappa Layout, Veeranapalya, Arabic College Post, Bangalore-560045

: BBMP/EE/BTP/WO/02/2021-22

: 17-08-22

: BM-Plant (Bituminous Macadam)

: 17-08-22

: 5000

Sieve Size(mm)	Weight Retained(gm)	Comulative Weight Retained (gm)	Comulative % of Retained	Comulative % of Passing	Specification Limits as per MORTH specification Table 500-7(grading -2)
26.5	0	0	0	100	100
19	165	165	3.3	96.7	90-100
13.2	512	677	13.5	86.5	56-88
4.75	2759	3436	68.7	31.3	16-36
2.36	911	4347	86.9	13.1	4-19
0.3	358	4705	94.1	5.9	2-10
0.075	232	4937	98.7	1.3	0-8
PAN	63	5000	100.0	0.0	0

Results obtained are satisfactory as per standard requirements.



For Civil Pro.
R. Karthik Rechan
Authorized Signatory
Quality Manager

ಸಹಾಯಕ ಅಭಿಯಂತರರು
ಬಿ.ಬಿ.ಎಂ.ಪಿ. ಮೈಸೂರು ನಗರ ಪಾಲಿಕೆ



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R. Karthik Rechan
Authorized Signatory
Quality Manager

Page 1/1
End of Report

PHYSICAL REQUIREMENTS FOR COARSE AGGREGATE FOR BITUMINOUS MACADAM

: CP-RW-2023-08-29-19

Date: 20-08-22

: Improvements to Roads and Drains at Mariyannapalya, Munikempanna Layout,
Bhuvaneshwarinagara, Dasarahalli Balance Roads and Surrounding Area in Ward
No. 06 Byatarayanapura Sub Division.

: Sri. Gopi Reddy, No:03, 1st Cross, 1st Main, Ramachandrapappa Layout,
Veeranapalya, Arabic College Post, Bangalore-560045

: BBMP/EE/BTP/WO/02/2021-22

: 17-08-22

: BM (Bituminous Macadam)

: 17-08-22

Table 500-6 : Physical Requirements fo Coarse Aggregate for Bituminous Macadam

Property	Test	Result	Specification	Method of Test
Physical Shape	Flakiness Index	13.8	Combined Flakiness & Elongation Index for BM is Maximum 35%	IS:2386 Part I
	Elongation Index	7.2		
Strength	Aggregate Impact Value	25.2	Maximum 30%	IS:2386 Part IV
Specific gravity	Specific gravity	2.51	Maximum 2.7	IS:2386 Part III
Absorption	Water Absorption	0.17	Maximum 2%	IS:2386 Part III

Results obtained are satisfactory as per standard requirements.

ಸಹಾಯಕ ಅಭಿಯಂತರರು
ಬಿ.ಬಿ.ಎಂ.ಪಿ. ಮುನಿಕಂಪನಾ ಲೇಔಟ್
ಮುನಿಷ್ಠಾಪುರ ಸಬ್ ಡಿವಿಷನ್
ಬಿ.ಬಿ.ಎಂ.ಪಿ. ಮಂಗಳೂರು-24



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TEST REPORT OF AGGREGATE STRIPPING VALUE OF ROAD AGGRGATE (IS:6241)

Lab ID
Project Name

: CP-RW-2023-08-29-19

Date: 20-08-22

: Improvements to Roads and Drains at Mariyannapalya, Munikempanna
Layout, Bhuvaneshwarinagara, Dasarahalli Balance Roads and
Surrounding Area in Ward No. 06 Byatarayanapura Sub Division.

Agency

: Sri. Gopi Reddy, No:03, 1st Cross, 1st Main, Ramachandrapappa
Layout, Veeranapalya, Arabic College Post, Bangalore-560045

Customer Reference

: BBMP/EE/BTP/WO/02/2021-22

Date of Receipt

: 17-08-22

Type of Mix

: BM(Bituminous Macadam)

Date of test

: 17-08-22

Type of Binder

:

% of Binder Used

:

60/70

Weight of Aggregate

:

3.4%

Weight of Binder

:

200.0 gm

Temperature of water bath

:

6.8 gm

40°C

No of test	Retained Stripping Percentage	Stripping Percentage	Average Retained Stripping Percentage	Secified limits as per MORTH specification table 500-8
1	98.0	2.0	98.2	Minimum Retained Coating 95%
2	98.5	1.5		
3	98.0	2.0		

*The results obtained are satisfactory as per standard requirements.


ಸಹಾಯಕ ಅಭಿಯಂತರರು

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ಬಿ.ಡಿ.ಎಂ.ಒ. ಬಂಗಲೂರು-24



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Page 1/1

****End of Report****

TESTS RESULTS ON STABILITY OF MIX

Lab ID
Project Name

: CP-RW-2023-08-29-19
: Improvements to Roads and Drains at Mariyannapalya, Munikempanna Layout, Bhuvaneshwarinagara, Dasarahalli Balance Roads and Surrounding Area in Ward No. 06 Byatarayanapura Sub Division.
Sri. Gopi Reddy, No:03, 1st Cross, 1st Main, Ramachandrapappa Layout, Veeranapalya, Arabic College Post, Bangalore-560045
Date: 20-08-22

Agency

Customer Reference

Date of Receipt

Type of Mix

Date of test

: BBMP/EE/BTP/WO/02/2021-22
: 17-08-22
: BM (Bituminous Mecadam)
: 17-08-22

The results of the tests conducted on the Bituminous Macadam mix sample are as follow

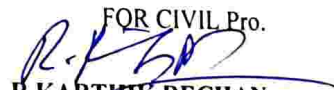
SL No	Particulars of observations	TEST 1	TEST 2	Secified limits as per MORTH specification table 500-11
1	Marshal Stability at 60°C, KN	11.29	11.82	9KN(Min)
2	Marshal flow at 60°C, mm	3.54	3.87	2-4
3	Percent air Voids	4.56	4.17	3-5
4	Percent Voids in mineral Aggregate(VMA %)	14.54	14.76	13-15
5	Percent Voids filled with Bitumen(VFB %)	68.98	70.28	65-75
6	Density, g/cc	2.42	2.40	-

The results obtained are satisfactory as per standard requirements.


ಸಹಾಯಕ ಅಭಿಯಂತರರು
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ಮುಖ್ಯ ಅಭಿಯಂತರರು
ಬ್ಯಾಟರಾಯನಪುರ ಉಪ ವಿಭಾಗ
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Page 1/1
End of Report

TEST RESULTS OF BITUMEN BINDAR CONTENT AND GRADATION FOR BM (IS 2386:(Part 1) 1963 (RA2011))

CP-RW-2023-08-29-19

Date: 24-08-22

Improvements to Roads and Drains at Mariyannapalya, Munikempanna Layout,
Bhuvaneshwarinagara, Dasarahalli Balance Roads and Surrounding Area in Ward No.
06 Byatarayanapura Sub Division,

Sri. Gopi Reddy, No:03, 1st Cross, 1st Main, Ramachandrapappa Layout,
Veeranapalya, Arabic College Post, Bangalore-560045

BBMP/EE/BTP/WO/02/2021-22

23-08-22

BM (Bituminous Macadam) 1st Main 3rd Cross

23-08-22

Description	Index	Trail 1	Trail 2
Weight of the Sample	W1	500	500
Weight of the sample After extraction	W2	484	485
Initial weight of Paper	W3	4	4
Final weight of Paper	W4	6	6
Increase in weight of Filter Paper	W5=W4-W3	2	2
Bitumen percentage	$\frac{W1-W2+W5}{W1} \times 100$	3.6	3.40
Average percentage	%	3.50	

28
ಇದರಲ್ಲಿ ಉಪಯುಕ್ತವಾದ ಮಾಹಿತಿ
ಅಧಿಕಾರಿಗಳಿಗೆ ಒದಗಿಸಲಾಗಿದೆ

ಇದರಲ್ಲಿ ಉಪಯುಕ್ತವಾದ ಮಾಹಿತಿ
ಅಧಿಕಾರಿಗಳಿಗೆ ಒದಗಿಸಲಾಗಿದೆ
24-08-22



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Authorized Signatory
Quality Manager

CP-RW-2023-08-29-19

Date: 24-08-22

AFTER EXTRACTION(Trail-1)

Weight of Sample (Sieve Size(mm))	Weight Retained (gm)	Comulative Weight Retained (gm)	Comulative % of Retained	Comulative % of Passing	Specification Limits as per MORTH specification Table 500- 7(grading -2)
	0	0	0.0	100.0	100
26.5	38	38	7.9	92.1	90-100
19	147	185	38.2	61.8	56-88
13.2	191	376	77.7	22.3	16-36
4.75	28	404	83.5	16.5	4-19
2.36	35	439	90.7	9.3	2-10
0.3	31	470	97.1	2.9	0-8
0.075					

AFTER EXTRACTION(Trail-2)

Weight of Sample (Sieve Size(mm))	Weight Retained (gm)	Comulative Weight Retained (gm)	Comulative % of Retained	Comulative % of Passing	Specification Limits as per MORTH specification Table 500- 7(grading -2)
	0	0	0.0	100.0	100
26.5	42	42	8.7	91.3	90-100
19	149	191	39.4	60.6	56-88
13.2	185	376	77.5	22.5	16-36
4.75	31	407	83.9	16.1	4-19
2.36	38	445	91.8	8.2	2-10
0.3	28	473	97.5	2.5	0-8
0.075					

Results obtained are satisfactory as per standard requirements.

ಸಹಾಯಕ ಅಭಿಯಂತರರು
ಪರೀಕ್ಷಾ ಕಾರ್ಯವಾರ್ತೆ ಅಭಿಯಂತರರು
ಪ್ರತಿ ಸಿ.ಪಿ.ಎ. ಮಂಗಳೂರು-24



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R KARTHIK RECHAN
Authorized Signatory
Quality Manager

TEST RESULTS OF BITUMEN BINDAR CONTENT AND GRADATION FOR BM (IS 2386:(Part 1) 1963 (RA2011))

CP-RW-2023-08-29-19
Date: 24-08-22
Improvements to Roads and Drains at Mariyannapalya, Munikempenna Layout,
Bhuvaneshwarinagara, Dasarahalli Balance Roads and Surrounding Area in Ward No.
06 Byatarayanapura Sub Division,
Sri. Gopi Reddy, No:03, 1st Cross, 1st Main, Ramachandrapappa Layout,
Veeranapalya, Arabic College Post, Bangalore-560045
BBMP/EE/BTP/WO/02/2021-22
23-08-22
BM (Bituminous Macadam) 21th Cross Road
23-08-22

Description	Index	Trail 1	Trail 2
Weight of the Sample	W1	500	500
Weight of the sample After extraction	W2	485	484.5
Initial weight of Paper	W3	4	4
Final weight of Paper	W4	6	6
Increase in weight of Filter Paper	W5=W4-W3	2	2
Bitumen percentage	$\frac{W1-W2+W5}{W1} \times 100$	3.4	3.50
Average percentage	%	3.45	

22
ಕರ್ನಾಟಕ ಅಭಿವೃದ್ಧಿ
ನಿರ್ದೇಶನ ಬ್ಯಾಂಕ್ ಲಿಮಿಟೆಡ್



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R KARTHIK RECHAN
Authorized Signatory
Quality Manager



ಕರ್ನಾಟಕ ಅಭಿವೃದ್ಧಿ
ನಿರ್ದೇಶನ ಬ್ಯಾಂಕ್ ಲಿಮಿಟೆಡ್
ಬೆಂಗಳೂರು-24

CP-RW-2023-08-29-19

Date: 14-08-23

AFTER EXTRACTION(Trail-1)

Weight of Sample Sieve Size(mm)	Weight Retained (gm)	Cumulative Weight Retained (gm)	Cumulative % of Retained	Cumulative % of Passing	Specification Limits as per MORTH specification Table 500-7(grading -2)
20.5	0	0	0.0	100.0	100
19	27	27	5.6	94.4	90-100
13.2	162	189	39.0	61.0	56-88
4.75	181	370	76.3	23.7	16-36
2.36	36	406	83.7	16.3	4-19
0.3	42	448	92.4	7.6	2-10
0.075	21	469	96.7	3.3	0-8

AFTER EXTRACTION(Trail-2)

Weight of Sample Sieve Size(mm)	Weight Retained (gm)	Cumulative Weight Retained (gm)	Cumulative % of Retained	Cumulative % of Passing	Specification Limits as per MORTH specification Table 500-7(grading -2)
20.5	0	0	0.0	100.0	100
19	34	34	7.0	93.0	90-100
13.2	155	189	39.0	61.0	56-88
4.75	193	382	78.8	21.2	16-36
2.36	42	424	87.5	12.5	4-19
0.3	22	446	92.1	7.9	2-10
0.075	19	465	96.0	4.0	0-8

Obtained are satisfactory as per standard requirements.

ಸಹಾಯಕ ಅಭಿಯಂತರರು
ಪ್ರತಿಪಾಲಕರು
ಪ್ರತಿಪಾಲಕರು
ಪ್ರತಿಪಾಲಕರು



FOR CIVIL Pro.
R KARTHIK RECHAN
Authorized Signatory
Quality Manager

TEST RESULTS OF BITUMEN BINDAR CONTENT AND GRADATION FOR BM
(IS 2386:(Part 1) 1963 (RA2011))

CP-RW-2023-08-29-19
Improvements to Roads and Drains at Mariyannapalya, Munikempanna Layout,
Bhuvaneshwarinagara, Dasarahalli Balance Roads and Surrounding Area in Ward No.
06 Byatarayanapura Sub Division.
Sri. Gopi Reddy, No:03, 1st Cross, 1st Main, Ramachandrapappa Layout,
Veeranapalya, Arabic College Post, Bangalore-560045
BBMP/EE/BTP/WO/02/2021-22
24-08-22
BM (Bituminous Macadam) 1st Main Road
24-08-22

Date: 25-08-22

Description	Index	Trail 1	Trail 2
Weight of the Sample	W1	500	500
Weight of the sample After extraction	W2	484.5	484
Initial weight of Paper	W3	4	4
Final weight of Paper	W4	6	6
Increase in weight of Filter Paper	W5=W4-W3	2	2
Bitumen percentage	$\frac{W1-W2+W5}{W1} \times 100$	3.5	3.60
Average percentage	%	3.55	

ಸಹಾಯಕ ಅಭಿಯಂತರರು
ಗೃಹ ಮತ್ತು ಪೂರೈಕೆ ಇಲಾಖೆ
ಬೆಂಗಳೂರು



FOR CIVIL Pro.
R KARTHIK RECHAN
Authorized Signatory
Quality Manager

ಸಹಾಯಕ ಕಾರ್ಯದರ್ಶಿ
ಪ್ರಾಚಾರ್ಯರು
ಪುನಃ ಪರಿಶೀಲನೆ-24

CP-RW-2023-08-29-19

AFTER EXTRACTION(Trail-1)

Date: 15-08-23

484.5 Grams

Sample Size(mm)	Weight Retained (gm)	Cumulative Weight Retained (gm)	Cumulative % of Retained	Cumulative % of Passing	Specification Limits as per MORTH specification Table 500-7(grading -2)
75	0	0	0.0	100.0	100
47.5	34	34	7.0	93.0	90-100
25	162	196	40.5	59.5	56-88
15	175	371	76.6	23.4	16-36
7.5	33	404	83.4	16.6	4-19
4.75	40	444	91.6	8.4	2-10
2.5	28	472	97.4	2.6	0-8

AFTER EXTRACTION(Trail-2)

484 Grams

Sample Size(mm)	Weight Retained (gm)	Cumulative Weight Retained (gm)	Cumulative % of Retained	Cumulative % of Passing	Specification Limits as per MORTH specification Table 500-7(grading -2)
75	0	0	0.0	100.0	100
47.5	39	39	8.1	91.9	90-100
25	142	181	37.4	62.6	56-88
15	182	363	75.0	25.0	16-36
7.5	49	412	85.1	14.9	4-19
4.75	34	446	92.1	7.9	2-10
2.5	23	469	96.9	3.1	0-8

obtained are satisfactory as per standard requirements.

(Handwritten signatures and stamps in Kannada)



FOR CIVIL PRO.
R. KARTHIK RECHAN
Authorized Signatory
Quality Manager

TEST RESULTS OF BITUMEN BINDAR CONTENT AND GRADATION FOR BM
(IS 2386:(Part 1) 1963 (RA2011))

CP-RW-2023-08-29-19
Improvements to Roads and Drains at Mariyannapalya, Munikempanna Layout,
Bhuvaneshwarinagara, Dasarahalli Balance Roads and Surrounding Area in Ward No.
06 Byatarayanapura Sub Division.
Sri. Gopi Reddy, No:03, 1st Cross, 1st Main, Ramachandrapappa Layout,
Veeranapalya, Arabic College Post, Bangalore-560045
BBMP/EE/BTP/WO/02/2021-22
24-08-22
BM (Bituminous Macadam) 2nd Main Road
24-08-22

Date: 25-08-22

Description	Index	Trail 1	Trail 2
Weight of the Sample	W1	500	500
Weight of the sample After extraction	W2	484	485
Initial weight of Paper	W3	4	4
Final weight of Paper	W4	6	6
Increase in weight of Filter Paper	W5=W4-W3	2	2
Bitumen percentage	$\frac{W1-W2+W5}{W1} \times 100$	3.6	3.40
Average percentage	%	3.50	

25

25.08.22



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Quality Manager

CP-RW-2023-08-29-19

AFTER EXTRACTION(Trail-1)

Date: 25-08-22

Sample Size(mm)	Weight Retained (gm)	Cumulative Weight Retained (gm)	Cumulative % of Retained	Cumulative % of Passing	Specification Limits as per MORTH specification Table 500-7(grading -2)
75	0	0	0.0	100.0	100
4.75	29	29	6.0	94.0	90-100
2.5	159	188	38.8	61.2	56-88
1.18	182	370	76.4	23.6	16-36
0.75	40	410	84.7	15.3	4-19
0.425	33	443	91.5	8.5	2-10
0.25	21	464	95.9	4.1	0-8

AFTER EXTRACTION(Trail-2)

Sample Size(mm)	Weight Retained (gm)	Cumulative Weight Retained (gm)	Cumulative % of Retained	Cumulative % of Passing	Specification Limits as per MORTH specification Table 500-7(grading -2)
75	0	0	0.0	100.0	100
4.75	34	34	7.0	93.0	90-100
2.5	148	182	37.5	62.5	56-88
1.18	161	343	70.7	29.3	16-36
0.75	63	406	83.7	16.3	4-19
0.425	37	443	91.3	8.7	2-10
0.25	24	467	96.3	3.7	0-8

are satisfactory as per standard requirements.



FOR CIVIL Pro.
R KARTHIK RECHAN
Authorized Signatory
Quality Manager

TEST RESULTS OF BITUMEN BINDAR CONTENT AND GRADATION FOR BM (IS 2386:(Part 1) 1963 (RA2011))

CP-RW-2023-08-29-19 Date: 02-12-22

Improvements to Roads and Drains at Mariyannapalya, Munikempanna Layout,
Bhuvaneshwarinagara, Dasarahalli Balance Roads and Surrounding Area in Ward No.
06 Byatarayanapura Sub Division.

Sri. Gopi Reddy, No:03, 1st Cross, 1st Main, Ramachandrapappa Layout,
Veeranapalya, Arabic College Post, Bangalore-560045

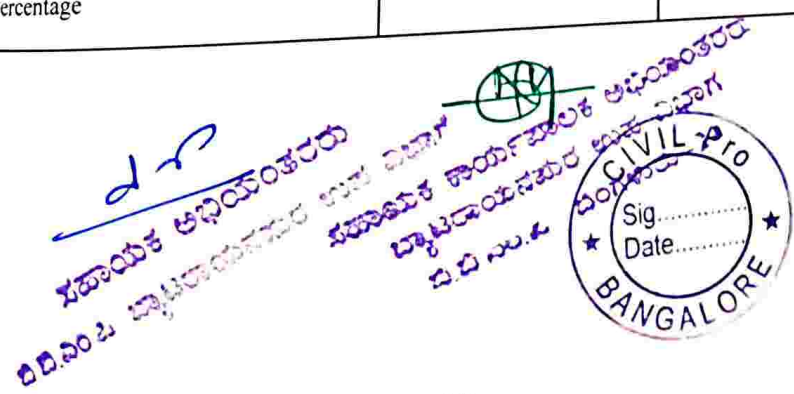
BBMP/EE/BTP/WO/02/2021-22

01-12-22

BM (Bituminous Macadam) Munikemmpama Layout - 1st Cross Road

01-12-22

Description	Index	Trail 1	Trail 2
Weight of the Sample	W1	500	500
Weight of the sample After extraction	W2	485	484.5
Initial weight of Paper	W3	4	4
Final weight of Paper	W4	6	6
Increase in weight of Filter Paper	W5=W4-W3	2	2
Bitumen percentage	$\frac{W1-W2+W5}{W1} \times 100$	3.4	3.50
Average percentage	%	3.45	



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 Quality Manager

TEST RESULTS OF GRADATION FOR BC IS 2386 (Part 1) 1963 (RA 2007)

: CP-RW-2023-08-29-19
 : Improvements to Roads and Drains at Mariyannapalya, Munikempanna
 Layout, Bhuvaneshwarinagara, Dasarahalli Balance Roads and Surrounding
 Area in Ward No. 06 Byatarayanapura Sub Division.
 : Sri. Gopi Reddy, No:03, 1st Cross, 1st Main, Ramachandrapappa Layout,
 Veeranapalya, Arabic College Post, Bangalore-560045
 : BBMP/EE/BTP/WO/02/2021-22
 : 17-08-22
 : BC-Plant (Bituminous Concrete)
 : 17-08-22
 : 5000 Grams

Date: 19-08-22

Sieve Size (mm)	Weight Retained (gm)	Cumulative Weight Retained (gm)	Cumulative % of Retained	Cumulative % of Passing	Secified limits as per MORTH specification table 500-17(grading-2)
19	0	0	0.0	100.0	100
13.2	89	89	1.8	98.2	90-100
9.5	702	791	15.8	84.2	70-88
4.75	895	1686	33.7	66.3	53-71
2.36	587	2273	45.5	54.5	42-58
1.18	492	2765	55.3	44.7	34-48
0.6	503	3268	65.4	34.6	26-38
0.3	528	3796	75.9	24.1	18-28
0.15	458	4254	85.1	14.9	12-20
0.075	350	4604	92.1	7.9	4-10
PAN	396	5000	100	0.0	0

Results obtained are satisfactory as per standard requirements.


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 Authorized Signatory
 Quality Manager

CP-RW-2023-08-29-19 Date: 20-08-22
Improvements to Roads and Drains at Mariyannapalya, Munikempanna
Layout, Bhuvaneshwarinagara, Dasarahalli Balance Roads and
Surrounding Area in Ward No. 06 Hyatarayanapura Sub Division.

Date: 20-08-22

Improvements to Roads and Drains at Mariyannapalya, Munikempanna Layout, Bhuvaneshwarinagara, Dasarahalli Balance Roads and Surrounding Area in Ward No. 06 Byatarayanapura Sub Division.

Sri. Gopi Reddy, No:03, 1st Cross, 1st Main, Ramachandrapappa Layout, Veeranapalya, Arabic College Post, Bangalore-560045

BBMP/EE/BTP/WO/02/2021-22

17-08-22

BC(Bitumenous Concrete)

17-08-22

60/70

5.4%

: 200.0 gm

∴ 10.8 gm

: 40°C

Retained Stripping Percentage	Stripping Percentage	Average Retained Stripping Percentage	Secified limits as per MORTH specification table 500-8
98.5	1.5	98.3	Minimum Retained Coating 95%
98.5	1.5		
98.0	2.0		

all obtained are satisfactory as per standard requirements.

satisfactory as per standard requirements.

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 ಸಮಾಧಿ ಕಾರ್ಯಪಾಲಕ ಅಧಿಕಾರಿಗಳು
 ಬೃಹದಾಶ್ರಮದ ಉಪ ನಿರ್ದೇಶಕರು
 ಬೆಂಗಳೂರು-24

CIVIL PRO
 Sig.....
 Date.....
BANGALORE

(Handwritten signature)
R K A
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Authorized Signatory
Quality Manager

PHYSICAL REQUIREMENTS FOR COARSE AGGREGATE FOR BITUMINOUS CONCRETE

CP-RW-2023-08-29-19

Improvements to Roads and Drains at Mariyannapalya, Munikempanna Layout,
Bhuvaneshwarinagara, Dasarahalli Balance Roads and Surrounding Area in Ward
No. 06 Byatarayanapura Sub Division.

Sri. Gopi Reddy, No:03, 1st Cross, 1st Main, Ramachandrapappa Layout,
Veeranapalya, Arabic College Post, Bangalore-560045

BBMP/EE/BTP/WO/02/2021-22

17-08-22

BC (Bituminous Concrete)

17-08-22

Date: 20-08-22

Table 500-16 : Physical Requirements for Coarse Aggregate for Bituminous Concrete

Test	Result	Specification	Method of Test
Flakiness Index	12.4	Combined Flakiness & Elongation Index for BC is Maximum 35%	IS:2386 Part I
Elongation Index	11.8		
Aggregate Impact Value	22.1	Maximum 24%	IS:2386 Part IV
Specific gravity	2.68	Maximum 2.7	IS:2386 Part III
Water Absorption	0.21	Maximum 2%	IS:2386 Part III

Results are satisfactory as per standard requirements.

ಸಹಾಯಕ ಅಭಿಯಂತರ
 ಮ.ರ.ವ.ಸ.ಪ. ಮುನಿಕಂಪನಾ ಉಪ ವಿಭಾಗ
 ಮುಖ್ಯಮಂತ್ರಿ ಕಾರ್ಯಾಲಯ ಭವನ
 ಬೈಟರಾಯನಪುರ ಉಪ ವಿಭಾಗ
 ಬೆಂಗಳೂರು-22



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 Authorized Signatory
 Quality Manager

TESTS RESULTS ON STABILITY OF MIX

CP-RW-2023-08-29-19 **Date: 20-08-22**

Improvements to Roads and Drains at Mariyannapalya, Munikempanna Layout, Bhuvaneshwarinagara, Dasarahalli Balance Roads and Surrounding Area in Ward No. 06 Byatarayanapura Sub Division.

Sri. Gopi Reddy, No:03, 1st Cross, 1st Main, Ramachandrapappa Layout, Veeranapalya, Arabic College Post, Bangalore-560045

BBMP/EE/BTP/WO/02/2021-22

17-08-22

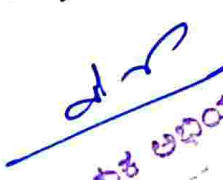
BC (Bituminous Concrete)

17-08-22

The results of the tests conducted on the Bituminous Concrete mix sample are as follow

Particulars of observations	TEST 1	TEST 2	Secified limits as per MORTH specification table 500-11
Marshall Stability at 60°C, KN	11.14	11.13	10KN(min)
Marshall flow at 60°C, mm	3.52	3.51	2-4
Percent air Voids	4.82	4.83	3-5
Percent Voids in mineral Aggregate(VMA %)	14.28	14.26	13-15
Percent Voids filled with Bitumen(VFB %)	71.87	71.63	65-75
Density, g/cc	2.25	2.26	-

Results obtained are satisfactory as per standard requirements.


 ಸಹಾಯಕ ಕಾರ್ಯಪಾಲಕ ಅಭಿಯಂತರ
 ಮಹಾನಗರ ಪಾಲಿಕೆ
 ಬಿ.ಎಂ.ಟಿ. ಸಂಸ್ಥೆ
 ಬಿ.ಎಂ.ಟಿ. ಸಂಸ್ಥೆ
 ಬಿ.ಎಂ.ಟಿ. ಸಂಸ್ಥೆ



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TEST RESULTS OF BITUMEN BINDAR CONTENT AND GRADATION FOR BC IS 2386 (Part 1) 1963 (RA 2011)

: CP-RW-2023-08-29-19

Date: 25-08-22

: Improvements to Roads and Drains at Mariyannapalya, Munikempanna Layout,
Bhuvaneshwarinagara, Dasarahalli Balance Roads and Surrounding Area in Ward No.
06 Byatarayanapura Sub Division.

: Sri. Gopi Reddy, No:03, 1st Cross, 1st Main, Ramachandrapappa Layout,
Veeranapalya, Arabic College Post, Bangalore-560045

: BBMP/EE/BTP/WO/02/2021-22

: 24-08-22

: BC (Bituminous Concrete) 1st Main 3rd Cross

: 24-08-22

S.No	Description	Index	Trail 1	Trail 2
1	Weight of the Sample	W1	500	500
2	Weight of the sample After extraction	W2	475	474
3	Initial weight of Paper	W3	4	4
4	Final weight of Paper	W4	6	6
5	Increase in weight of Filter Paper	W5=W4-W3	2	2
6	Bitumen percentage	$\frac{W1-W2+W5}{W1} \times 100$	5.40	5.60
7	Average percentage	%	5.50	

ಸಹಾಯಕ ಅಭಿಯಂತರರು
ಬಿ.ಬಿ.ಎಂ.ಪಿ. ಮುನಿಕಂಪನಾ ಉಪ ವಿಭಾಗ

ಸಹಾಯಕ ಕಾರ್ಯದರ್ಶಿ ಅಭಿಯಂತರರು
ಮುಖ್ಯಕಾರ್ಯದರ್ಶಿರವರ ಉಪ ವಿಭಾಗ
ಬಿ.ಬಿ.ಎಂ.ಪಿ. ಮುನಿಕಂಪನಾ ಉಪ ವಿಭಾಗ
Page 02 of 02



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CP-RW-2023-08-29-19

Lab ID

AFTER EXTRACTION - Trail-1

Date: 25-08-22

Total Weight of the Sample(gm) : 475					
IS Sieve Size (mm)	Weight Retained (gm)	Cumulative Weight Retained (gm)	Cumulative % of Retained	Cumulative % of Passing	Specified limits as per MORTH specification table 500-17(grading-2)
19	0	0	0.0	100.0	100
13.2	4	4	0.8	99.2	90-100
9.5	62	66	13.9	86.1	70-88
4.75	112	178	37.5	62.5	53-71
2.36	88	266	56.0	44.0	42-58
1.18	29	295	62.1	37.9	34-48
0.6	11	306	64.4	35.6	26-38
0.3	46	352	74.1	25.9	18-28
0.15	45	397	83.6	16.4	12-20
0.075	55	452	95.2	4.8	4-10

AFTER EXTRACTION - Trail-2

Total Weight of the Sample(gm) : 474					
IS Sieve Size (mm)	Weight Retained (gm)	Cumulative Weight Retained (gm)	Cumulative % of Retained	Cumulative % of Passing	Specified limits as per MORTH specification table 500-17(grading-2)
19	0	0	0.0	100.0	100
13.2	4	4	0.8	99.2	90-100
9.5	62	66	13.9	86.1	70-88
4.75	112	178	37.6	62.4	53-71
2.36	88	266	56.1	43.9	42-58
1.18	29	295	62.2	37.8	34-48
0.6	11	306	64.6	35.4	26-38
0.3	46	352	74.3	25.7	18-28
0.15	45	397	83.8	16.2	12-20
0.075	55	452	95.4	4.6	4-10

*The results obtained are satisfactory as per standard requirements.

ಇದರಲ್ಲಿ ಉಪಯುಕ್ತವಾದ ಮತ್ತು ಅನುಮತಿಸಲಾಗುವ ಉಪಕರಣಗಳನ್ನು
ಪರಿಶೀಲಿಸಿ ಮತ್ತು ದೃಢೀಕರಿಸಿರುವುದು
2023-08-24



FOR CIVIL PRO
R KARTHIK RECHAN
Authorized Signatory
Quality Manager

TEST RESULTS OF BITUMEN BINDAR CONTENT AND GRADATION FOR BC IS 2386 (Part 1) 1963 (RA 2011)

Lab ID
Project Name

Agency
Customer Reference
Date of Receipt
Type of Mix
Date of test

CP-RW-2023-08-29-19
Improvements to Roads and Drains at Mariyannapalya, Munikempanna Layout,
Bhuvaneshwarinagara, Dasarahalli Balance Roads and Surrounding Area in Ward No.
06 Byatarayanapura Sub Division.
Sri. Gopi Reddy, No.03, 1st Cross, 1st Main, Ramachandrapappa Layout,
Veeranapalya, Arabic College Post, Bangalore-560045
BBMP/EE/BTP/WO/02/2021-22
24-08-22
BC (Bituminous Concrete) 21th Cross Road
24-08-22

Date: 27-08-22

S.No	Description	Index	Trail 1	Trail 2
1	Weight of the Sample	W1	500	500
2	Weight of the sample After extraction	W2	474.5	474
3	Initial weight of Paper	W3	4	4
4	Final weight of Paper	W4	6	6
5	Increase in weight of Filter Paper	W5=W4-W3	2	2
6	Bitumen percentage	$\frac{W1-W2+W5}{W1} \times 100$	5.50	5.60
7	Average percentage	%	5.55	

ಸಹಾಯಕ ಅಭಿಯಂತರರು
ಬಿ.ಬಿ.ಎಂ.ಪಿ. ಮ್ಯಾಟರಿಯಲ್ಸ್ ಮತ್ತು ವಿಭಾಗ



FOR CIVIL Pro.
R KARTHIK RECHAN
Authorized Signatory
Quality Manager

Page 1/2

ಪ್ರಾಜೆಕ್ಟ್ ಇಂಜಿನಿಯರ್
ಮ್ಯಾಟರಿಯಲ್ಸ್ ಮತ್ತು ವಿಭಾಗ
ಬಿ.ಬಿ.ಎಂ.ಪಿ. ಮಂಗಳೂರು-24

CP-RW-2023-08-29-19

AFTER EXTRACTION - Trail-1

Date: 27-08-22

Weight of the Sample(gm)	Weight Retained (gm)	Cumulative Weight Retained (gm)	Cumulative % of Retained	Cumulative % of Passing	Specified limits as per MORTH specification table 500-17(grading-2)
19	0	0	0.0	100.0	100
13.2	8	8	1.7	98.3	90-100
9.5	66	74	15.6	84.4	70-88
4.75	101	175	36.9	63.1	53-71
2.36	80	255	53.7	46.3	42-58
1.18	34	289	60.9	39.1	34-48
0.6	16	305	64.3	35.7	26-38
0.3	40	345	72.7	27.3	18-28
0.15	44	389	82.0	18.0	12-20
0.075	60	449	94.6	5.4	4-10

AFTER EXTRACTION - Trail-2

Weight of the Sample(gm)	Weight Retained (gm)	Cumulative Weight Retained (gm)	Cumulative % of Retained	Cumulative % of Passing	Specified limits as per MORTH specification table 500-17(grading-2)
19	0	0	0.0	100.0	100
13.2	10	10	2.1	97.9	90-100
9.5	57	67	14.1	85.9	70-88
4.75	117	184	38.8	61.2	53-71
2.36	90	274	57.8	42.2	42-58
1.18	29	303	63.9	36.1	34-48
0.6	17	320	67.5	32.5	26-38
0.3	51	371	78.3	21.7	18-28
0.15	30	401	84.6	15.4	12-20
0.075	35	436	92.0	8.0	4-10

The results obtained are satisfactory as per standard requirements.

ಸಹಾಯಕ ಅಭಿಯಂತರರು
ದಿ.ದಿ.ಎಂ.ಪಿ. ಮ್ಯಾಟರಿಯಲ್ಸ್ ಟೆಸ್ಟಿಂಗ್ ಲ್ಯಾಬ್



FOR CIVIL PRO.
R KARTHIK RECHAN
Authorized Signatory
Quality Manager

ಸಹಾಯಕ ಅಭಿಯಂತರರು
ದಿ.ದಿ.ಎಂ.ಪಿ. ಮ್ಯಾಟರಿಯಲ್ಸ್ ಟೆಸ್ಟಿಂಗ್ ಲ್ಯಾಬ್
ಇ-ಮೇಲ್: ಬಂಗಳೂರು-24

Page 2/2
End of Report

24-08-22

rate of test

tel : +91 80 23444801 | e : rechan6630@yahoo.co.in, civilpr...

: CP-RW-2023-08-29-19

AFTER EXTRACTION - Trail-1

Date: 27-08-22

EXTRACTION - Trail-1					Date: 27-08-22
Weight of the Sample(gm)	Weight Retained (gm)	Cumulative Weight Retained (gm)	Cumulative % of Retained	Cumulative % of Passing	Specified limits as per MORTH specification table 500-17(grading-2)
19	0	0	0.0	100.0	100
13.2	6	6	1.3	98.7	90-100
9.5	69	75	15.8	84.2	70-88
4.75	108	183	38.5	61.5	53-71
2.36	80	263	55.4	44.6	42-58
1.18	39	302	63.6	36.4	34-48
0.6	25	327	68.8	31.2	26-38
0.3	55	382	80.4	19.6	18-28
0.15	21	403	84.8	15.2	12-20
0.075	37	440	92.6	7.4	4-10

AFTER EXTRACTION - Trail-2				
Weight of the Sample(gm)	Weight Retained (gm)	Cumulative Weight Retained (gm)	Cumulative % of Retained	Cumulative % of Passing
19	0	0	0.0	100.0
13.2	6	6	1.3	98.7
9.5	69	75	15.8	84.2
4.75	108	183	38.5	61.5
2.36	80	263	55.4	44.6
1.18	39	302	63.6	36.4
0.6	25	327	68.8	31.2
0.3	55	382	80.4	19.6
0.15	21	403	84.8	15.2
0.075	37	440	92.6	7.4

Total Weight of the Sample(gm)		AFTER EXTRACTION - Trail-2			
IS Sieve Size (mm)	Weight Retained (gm)	Cumulative Weight Retained (gm)	Cumulative % of Retained	Cumulative % of Passing	Specified limits as per MORTH specification table 500-17(grading-2)
19	0	0	0.0	100.0	100
13.2	7	7	1.5	98.5	90-100
9.5	63	70	14.8	85.2	70-88
4.75	111	181	38.1	61.9	53-71
2.36	80	261	55.0	45.0	42-58
1.18	34	295	62.2	37.8	34-48
0.6	35	330	69.5	30.5	26-38
0.3	47	377	79.5	20.5	18-28
0.15	34	411	86.6	13.4	12-20
0.075	40	451	95.0	5.0	4-10

The results obtained are satisfactory as per standard requirements.

ಸಹಾಯಕ ಅಭಿಯಂತರರು
ಬಿ.ಡಿ.ಎಂ.ಪಿ. ಪ್ರಾ.ಪಿ.ರಾ.ಯ.ನ.ಮ.ರ. ಬಾ.ನ. ವಿ.ಬಾ.



ಕೃಷಿ ಕಾರ್ಯಾಲಯ ಅಧೀನದಲ್ಲಿ
ಕೃಷಿ ಕಾರ್ಯಾಲಯ ಉಪ ವಿಭಾಗ
ಸಿ.ಟಿ.ಎಂ. ರಸ್ತೆ-23

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End of Report



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Authorized Signatory
Quality Manager

**TEST RESULTS OF BITUMEN BINDAR CONTENT AND GRADATION FOR BC
IS 2386 (Part 1) 1963 (RA 2011)**

CP-RW-2023-08-29-19
Improvements to Roads and Drains at Mariyannapalya, Munikempanna Layout,
Bhuvaneshwarinagara, Dasarahalli Balance Roads and Surrounding Area in Ward No.
06 Byatarayanapura Sub Division.
Sri. Gopi Reddy, No:03, 1st Cross, 1st Main, Ramachandrapappa Layout,
Veeranapalya, Arabic College Post, Bangalore-560045
BBMP/EE/BTP/WO/02/2021-22
25-08-22
BC (Bituminous Concrete) 2nd Main Road
25-08-22

Date: 28-08-22

Description	Index	Trail 1	Trail 2
Weight of the Sample	W1	500	500
Weight of the sample After extraction	W2	475	474
Initial weight of Paper	W3	4	4
Final weight of Paper	W4	6	6
Increase in weight of Filter Paper	W5=W4-W3	2	2
Bitumen percentage	$\frac{W1-W2+W5}{W1} \times 100$	5.40	5.60
Average percentage	%	5.50	

ಸಹಾಯಕ ಅಭಿಯಂತರರು
ಬಿ.ಎಂ.ಒ. ಮೈಸೂರು-24

ಸಹಾಯಕ ಕಾರ್ಯದರ್ಶಿ ಅಭಿಯಂತರರು
ಬಿ.ಎಂ.ಒ. ಮೈಸೂರು-24
Page 1/2



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Authorized Signatory
Quality Manager

CP-RW-2023-08-29-19

Date: 28-08-23

AFTER EXTRACTION - Trail-1

Weight of the Sample (gm)	Weight Retained (gm)	Cumulative Weight Retained (gm)	Cumulative % of Retained	Cumulative % of Passing	Specified limits as per MORTH specification table 500-17(grading-2)
19	0	0	0.0	100.0	100
13.2	12	12	2.5	97.5	90-100
9.5	70	82	17.3	82.7	70-88
4.75	100	182	38.3	61.7	53-71
2.36	88	270	56.8	43.2	42-58
1.18	30	300	63.2	36.8	34-48
0.6	34	334	70.3	29.7	26-38
0.3	43	377	79.4	20.6	18-28
0.15	25	402	84.6	15.4	12-20
0.075	39	441	92.8	7.2	4-10

AFTER EXTRACTION - Trail-2

Weight of the Sample (gm)	Weight Retained (gm)	Cumulative Weight Retained (gm)	Cumulative % of Retained	Cumulative % of Passing	Specified limits as per MORTH specification table 500-17(grading-2)
19	0	0	0.0	100.0	100
13.2	10	10	2.1	97.9	90-100
9.5	66	76	16.0	84.0	70-88
4.75	114	190	40.1	59.9	53-71
2.36	75	265	55.9	44.1	42-58
1.18	39	304	64.1	35.9	34-48
0.6	30	334	70.5	29.5	26-38
0.3	35	369	77.8	22.2	18-28
0.15	34	403	85.0	15.0	12-20
0.075	33	436	92.0	8.0	4-10

Results obtained are satisfactory as per standard requirements.

ಸಹಾಯಕ ಅಭಿಯಂತರರು
ಶ್ರೀ.ಎಂ.ಪಿ. ಮಲ್ಲೇಶ್ವರನ್

ಪ್ರಾಧಿಕಾರಿತ ಉಪ ನಿರ್ದೇಶಕರು
ಪ್ರಾಧಿಕಾರಿತ ಉಪ ನಿರ್ದೇಶಕರು
ಶ್ರೀ.ಎಂ.ಪಿ. ಮಲ್ಲೇಶ್ವರನ್-24

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End of Report



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Quality Manager

**TEST RESULTS OF BITUMEN BINDAR CONTENT AND GRADATION FOR BC
 IS 2386 (Part I) 1963 (RA 2011)**

CP-RW-2023-08-29-19
 Date: 05-12-22
 Improvements to Roads and Drains at Mariyannapalya, Munikempanna Layout,
 Bhuvaneshwarinagara, Dasarahalli Balance Roads and Surrounding Area in Ward No.
 06 Byatarayanapura Sub Division,
 Sri. Gopi Reddy, No:03, 1st Cross, 1st Main, Ramachandrapappa Layout,
 Veeranapalya, Arabic College Post, Bangalore-560045
 BBMP/EE/BTP/WO/02/2021-22
 02-12-22
 BC (Bituminous Concrete) Munikemmpama Layout - 1st Cross Road
 02-12-22

Description	Index	Trail 1	Trail 2
Weight of the Sample	W1	500	500
Weight of the sample After extraction	W2	474.5	474
Initial weight of Paper	W3	4	4
Final weight of Paper	W4	6	6
Increase in weight of Filter Paper	W5=W4-W3	2	2
Bitumen percentage	$\frac{W1-W2+W5}{W1} \times 100$	5.50	5.60
Average percentage	%	5.55	

ಪ್ರಾಧಿಕಾರಿತ ಅಧಿಕಾರಿ
 ಸಿ.ಪಿ.ಪಿ. ಮೆಟ್ರಿಕ್ ಟೆಸ್ಟಿಂಗ್ ಲ್ಯಾಬ್

ಪ್ರಾಧಿಕಾರಿತ ಅಧಿಕಾರಿ
 ಮೆಟ್ರಿಕ್ ಟೆಸ್ಟಿಂಗ್ ಲ್ಯಾಬ್
 ಸಿ.ಪಿ.ಪಿ. ಮೆಟ್ರಿಕ್ ಟೆಸ್ಟಿಂಗ್ ಲ್ಯಾಬ್-24



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 Quality Manager

AFTER EXTRACTION - Trail-1

Date: 05.12.23

Initial Weight of the Sample (gm)	Weight Retained (gm)	Cumulative Weight Retained (gm)	Cumulative % of Retained	Cumulative % of Passing	Specified limits as per MORTH specification table 500.17 (grading-1)
10	0	0	0.0	100.0	100
13.2	9	9	1.9	98.1	90-100
4.75	73	82	17.1	82.7	70-88
2.36	109	191	40.3	59.7	53-71
1.18	60	251	52.9	47.1	42-58
0.6	45	296	62.4	37.6	34-48
0.3	38	334	70.4	29.6	26-38
0.15	49	383	80.7	19.3	18-28
0.075	30	413	87.0	13.0	12-20
	31	444	93.6	6.4	4-10

AFTER EXTRACTION - Trail-2

Initial Weight of the Sample (gm)	Weight Retained (gm)	Cumulative Weight Retained (gm)	Cumulative % of Retained	Cumulative % of Passing	Specified limits as per MORTH specification table 500.17 (grading-2)
10	0	0	0.0	100.0	100
13.2	7	7	1.5	98.5	90-100
4.75	64	71	15.0	85.0	70-88
2.36	114	185	39.0	61.0	53-71
1.18	72	257	54.2	45.8	42-58
0.6	41	298	62.9	37.1	34-48
0.3	29	327	69.0	31.0	26-38
0.15	31	358	75.5	24.5	18-28
0.075	27	385	81.2	18.8	12-20
	51	436	92.0	8.0	4-10

The results obtained are satisfactory as per standard requirements.

[Signature]

ಸಹಾಯಕ ಅಭಿಯಂತರರು
 ಸಿವಿಲ್ ಪ್ರೋ ಎಕ್ಸ್‌ಪರ್ಟ್ಸ್ ಲ್ಯಾಬೋರೇಟರಿ
 ಬೆಂಗಳೂರು-24



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[Signature]
 R KARTHIK RECHAN
 Authorized Signatory
 Quality Manager

[Signature]

Page 2/2
 End of Report

ಸಹಾಯಕ ಕಾರ್ಯಪಾಲಕ ಅಭಿಯಂತರರು
 ಜ್ಯೋತಿರಾಜನಹಳ್ಳಿ ಉಪ ವಿಭಾಗ
 ಬಿ.ಎ.ಎ. ಬೆಂಗಳೂರು-24

DETERMINATION OF RATE OF SPREAD TACK COAT

CP-RW-2023-08-29-19

Date: 25-08-23

Improvements to Roads and Drains at Mariyannapalya, Mimikampanna
Layout, Bhuvaneshwarinagara, Dasarahalli Balance Roads and
Surrounding Area in Ward No. 06 Byatarayanapura Sub Division.

Sri. Gopi Reddy, No:03, 1st Cross, 1st Main, Ramachandrapappa
Layout, Veeranapalya, Arabic College Post, Bangalore-560045

BBMP/EE/BTP/WO/02/2021-22

24-08-22

Tack coat

24-08-22

Determination	Unit	TEST 1	TEST 2
Size of Plate (mxm)	Mt	0.30 x .30	0.30 x .30
Area of Plate (a)	Sq.mtr	0.09	0.09
Initial Wt of empty Plate (b)	Kg	0.78	0.748
Final weight of plate after application of tack Coat (c)	Kg	0.803	0.771
Weight of tack Coat (d=c-b)	Kg	0.023	0.023
Rate of spread of tack coat	Kg/sq.m	0.256	0.256
Average	Kg/sq.m	0.256	
Specified Limit	Kg/sq.m	0.250 Kg/sq.m	

The results obtained are satisfactory as per standard requirements.

ಸಹಾಯಕ ಕಾರ್ಯನಿರ್ವಾಹಕ ಅಭಿಯಂತರರು
ಬಾಹ್ಯರೋಡುಗಳ ಸುಧಾರಣೆ ಮತ್ತು ವಿಸ್ತರಣೆ
ದಿ.25.08.23 ಬೆಂಗಳೂರು-24



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Quality Manager

DETERMINATION OF RATE OF SPREAD TACK COAT

CP-RW-2023-08-29-19

Date: 14.08.23

Improvements to Roads and Drains at Mariyannapalya, Munchannagere Layout, Bhuvaneshwarinagara, Dasarahalli Halasira Road and Surrounding Area in Ward No. 06 Byattarayana Sub Division

Sri. Gopi Reddy, No.03, 1st Cross, 1st Main, Ramachandrapappa Layout, Veeranapalya, Arabic College Post, Bangalore-560044

BBMP/EE/BTP/WO/02/2021-22

24-08-22

Tack coat

24-08-22

Reference

Receipt

Mix

Test

Area of Plate (mxm)

Area of Plate (a)

Initial Wt of empty Plate (b)

Final weight of plate after application of tack Coat (c)

Weight of tack Coat (d=c-b)

Rate of spread of tack coat

Average

Specified Limit

Determination

Unit

TEST 1

TEST 2

Mt

0.30 x .30

0.30 x .30

Sq.mtr

0.09

0.09

Kg

0.78

0.748

Kg

0.801

0.77

Kg

0.021

0.022

Kg/sq.m

0.233

0.244

Kg/sq.m

0.239

Kg/sq.m

0.250 Kg/sq.m

Results obtained are satisfactory as per standard requirements.

ಇತರರ ಅಧಿಕಾರವು
ಇದರ ಮೇಲೆ ಇರುವುದಿಲ್ಲ
ಇದರ ಮೇಲೆ ಇರುವುದಿಲ್ಲ

ಇತರರ ಅಧಿಕಾರವು
ಇದರ ಮೇಲೆ ಇರುವುದಿಲ್ಲ
ಇದರ ಮೇಲೆ ಇರುವುದಿಲ್ಲ



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CP-RW-2023-08-29-19

: Improvements to Roads and Drains at Mariyannapalya, Munikempanna
: Layout, Bhuvaneshwarinagara, Dasarahalli Balance Roads and
Surrounding Area in Ward No. 06 Byatarayanapura Sub Division.

Sri. Gopi Reddy, No:03, 1st Cross, 1st Main, Ramachandrapappa
Layout, Veeranapalya, Arabic College Post, Bangalore-560045

BBMP/EE/BTP/WO/02/2021-22

25-08-22

Tack coat

25-08-22

Receipt		Unit	TEST 1	TEST 2
: 25-08-22				
Determination				
Size of Plate (mxm)		Mt	0.30 x .30	0.30 x .30
Area of Plate (a)		Sq.mtr	0.09	0.09
Initial Wt of empty Plate (b)		Kg	0.78	0.748
Final weight of plate after application of tack Coat (c)		Kg	0.803	0.77
Weight of tack Coat (d=c-b)		Kg	0.023	0.022
Rate of spread of tack coat		Kg/sq.m	0.256	0.244
Average		Kg/sq.m	0.250	
Specified Limit		Kg/sq.m	0.250 Kg/sq.m	

standard requirements.



The results obtained are satisfactory as per standard requirements.

e satisfactory as per standard requirements.

27

ಸಮಾಜ ಸೇವಾ ಕೇಂದ್ರ
 ಮೈಸೂರು ನಗರ ಪುರಾಣಿ
 ಬಿ.ಬಿ.ಎಂ. ರಸ್ತೆ-24

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Quality Manager

DETERMINATION OF RATE OF SPREAD TACK COAT

: CP-RW-2023-08-29-19

: Improvements to Roads and Drains at Mariyannapalya, Munikempanna Layout, Bhuvaneshwarinagara, Dasarahalli Balance Roads and Surrounding Area in Ward No. 06 Byatarayanapura Sub Division

Date: 16-08-22

: Sri. Gopi Reddy, No:03, 1st Cross, 1st Main, Ramachandrapappa Layout, Veeranapalya, Arabic College Post, Bangalore-560045

: BBMP/EE/BTP/WO/02/2021-22

: 25-08-22

: Tack coat

: 25-08-22

Reference
Receipt
MIX
TEST

Determination	Unit	TEST 1	TEST 2
Size of Plate (mxm)	Mt	0.30 x .30	0.30 x .30
Area of Plate (a)	Sq.mtr	0.09	0.09
Initial Wt of empty Plate (b)	Kg	0.78	0.748
Final weight of plate after application of tack Coat (c)	Kg	0.803	0.769
Weight of tack Coat (d=c-b)	Kg	0.023	0.021
Rate of spread of tack coat	Kg/sq.m	0.256	0.233
Average	Kg/sq.m	0.244	
Specified Limit	Kg/sq.m	0.250 Kg/sq.m	

Results obtained are satisfactory as per standard requirements.

ಇದರಲ್ಲಿ ಉಪಯುಕ್ತವಾದ
ಪ್ರತಿರೋಧಕ ಕಾರ್ಯವಾಹಕ ಅಭಿವೃದ್ಧಿ
ಪ್ರಾಜೆಕ್ಟ್‌ನಲ್ಲಿ ಉಪಯುಕ್ತವಾದ
ಪ್ರಾಜೆಕ್ಟ್‌ನಲ್ಲಿ ಉಪಯುಕ್ತವಾದ



FOR CIVIL Pro.
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Quality Manager

DETERMINATION OF RATE OF SPREAD TACK COAT

CP-RW-2023-08-29-19

Date: 03-12-22

Improvements to Roads and Drains at Mariyannapalya, Munikempanna Layout, Bhuvaneshwarinagara, Dasarahalli Balance Roads and Surrounding Area in Ward No. 06 Byatarayanapura Sub Division.

Sri. Gopi Reddy, No:03, 1st Cross, 1st Main, Ramachandrapappa Layout, Veeranapalya, Arabic College Post, Bangalore-560045

BBMP/EE/BTP/WO/02/2021-22

02-12-22

Tack coat

02-12-22

Customer Reference
Date of Receipt
Type of Mix
Rate of test

	Determination	Unit	TEST 1	TEST 2
1	Size of Plate (mxm)	Mt	0.30 x .30	0.30 x .30
2	Area of Plate (a)	Sq.mtr	0.09	0.09
3	Initial Wt of empty Plate (b)	Kg	0.78	0.748
4	Initial Wt of empty Plate (b)	Kg	0.804	0.771
5	Final weight of plate after application of tack Coat (c)	Kg	0.024	0.023
6	Weight of tack Coat (d=c-b)	Kg/sq.m	0.267	0.256
7	Rate of spread of tack coat	Kg/sq.m	0.261	
8	Average	Kg/sq.m	0.250 Kg/sq.m	
8	Specified Limit	Kg/sq.m		

*The results obtained are satisfactory as per standard requirements.

ಸಹಾಯಕ ಅಭಿಯಂತರರು
03.12.22 ರಲ್ಲಿ

ಪ್ರಾಜೆಕ್ಟ್ ಇಂಜಿನಿಯರ್ ಅಭಿಯಂತರರು
ಪ್ರಾಜೆಕ್ಟ್ ಇಂಜಿನಿಯರ್ ಅಭಿಯಂತರರು
03.12.22 ರಲ್ಲಿ



FOR CIVIL PRO.
R KARTHIK RECHAN
Authorized Signatory
Quality Manager